

*If you are using a printed copy of this procedure, and not the on-screen version, then you **MUST** make sure the dates at the bottom of the printed copy and the on-screen version match.
The on-screen version of the Collider-Accelerator Department Procedure is the Official Version.
Hard copies of all signed, official, C-A Operating Procedures are kept on file in the C-A ESHQ Training Office, Bldg. 911A.*

C-A OPERATIONS PROCEDURES MANUAL

14.4.1 Operational Control Form for AGS Cooling Water Systems

Text Pages 2 through 4

Hand Processed Changes

<u>HPC No.</u>	<u>Date</u>	<u>Page Nos.</u>	<u>Initials</u>
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Approved: _____ *Signature on File* _____
Collider-Accelerator Department Chairman Date

M. Van Essendelft

BNL Environmental Management System Operational Controls Form

Operational Control For Significant Environmental Aspects: AGS-004-CWS	Completed By: <u>M. Van Essendelft</u> Date: <u>December 29, 2005</u>
1. Operation(s): C-A Cooling Water Systems	
2. Activity(ies): <ul style="list-style-type: none"> • Chemical storage • Chemical transfer / transport • Cooling tower blow-down to recharge basin • Radioactive waste generation • Radioactive atmospheric discharges • Water consumption 	
3. Operational Controls (technological, operational, procedural operating criteria): <ul style="list-style-type: none"> • Secondary containment • Hi / low level alarms • Leak detection systems • Weekly system monitoring by Drew Industrial Division of Ashland Chemical • Monthly effluent monitoring/reporting • Inspections of chemical storage/feed systems • C-A OPM 2.19, Operator Response to "Make-up" Alarms • C-A OPMs 8.16.1 through 8.16.8, LINAC Cooling Water System OPMs • C-A OPM 8.20, Handling and Disposing of Hazardous Waste • C-A OPM 8.20.2, Radioactive Waste Disposal • C-A OPM 8.22, Handling and Disposal of Non-Hazardous and Recyclable Solid Waste • C-A OPM 8.20.1, C-A Hazardous Waste Collection Station • C-A OPM 8.18.1, General Water Treatment • C-A OPM 8.18.1.a, Water Treatment Services Agreement with Drew Industrial Division of Ashland Chemical • C-A OPM 8.18.5, C-A Deionizer Resin Exchange Procedure • C-A OPM 8.31.c, Deionizer Maintenance • C-A OPM 8.31.e, Draining and Filling Systems Checklist • C-A OPM 8.31.f, Water Transfer Checklist • C-A OPM 10.2, Response To Tritiated Water Spills • C-A OPM 10.1.d, Operator Response to C-A Water Spills • C-A OPM 2.28, C-A Procedure for Work Planning and Control for Operations • C-A OPM 1.14, General requirements For Liquid and Outdoor Storage • Tier I program and self-evaluations 	

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4. Maintenance Plan(s): <ul style="list-style-type: none"> PE annual cross-connection control plan (PE Maint. Mgmt. Center database) C-A Water Systems Group inspection of chemical storage systems Weekly analysis of cooling water specified in Drew Industrial contract PE maintenance of chemical feed systems 	
5. Actions to be Taken if Controls Fail: <ul style="list-style-type: none"> See C-A OPM 3.0, Local Emergency Plan for the C-A Department Call spill response hotline – X2222 or 911 Adjust water chemical levels if found to be outside limits. 	
6. Records: <ul style="list-style-type: none"> Tier I Inspection records / Tracking Database Operational Control Form Process Assessment Form / Corrective Action, P2 Measures, and Assessment, Prevention & Control Initiatives Tracking Database C-A Family ATS documentation on completion of Environmental Management Program, Section 10 Tasks ORPS report (for qualifying liquid spills only) Weekly analytical results on cooling system water (Drew), Monthly SPDES sampling and DMR (EWMSD) Chemical distribution system maintenance records (PE) C-A Water Systems Status of Equipment Log Satellite Area inspections records Tank inspection records 	
7. Responsibilities: [(a) to ensure controls are in place; (b) to ensure controls keep working; (c) to take action when controls fail; (d) to create and keep records relative to operational controls]	
Name	Responsibility
C-A Water Systems Tech Supervisor	Daily inspections of chemical storage systems Testing of hi/low level systems Testing leak detection systems Adjust chemical concentrations if limits exceeded Monthly inspection of storage tanks

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Name (cont.)	Responsibility (cont.)		
EWMSD	Recharge basin monitoring		
PE	Annual Cross Connection Control testing / maint.		
Drew	Weekly water analysis, chemical control recommendations, recommendations for chemical feed station upgrades, evaluation of corrosion control results.		
PE	Maintenance of chemical feed systems		
C-A Waste Management Representative	Satellite Area inspections		
Tier I Inspection Committee	Tier I Documentation		
8. Training:			
Name	Training	Date	
C-A Water Systems Technical Supervisor	Haz. Waste Generator Rad. Waste Generator	NA	
Drew Industrial techs	Contractor vendor orientation	NA	
Building Staff	See also: EMS Training package for this operation	NA	